

RTCA Special Committee 186, Working Group 3

ADS-B 1090 MOPS, Revision A

Meeting #11

**Frankfurt May 19, 2000 British Airways Target Reception Data with
RMF Baseline Enhanced Decoder**

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SUMMARY
In response to Action Item 9-10, this paper presents 1090 Extended Squitter reception data from the first encounter with a British Airways target of opportunity (BA-40665) recorded May 19, 2000 aboard N40 in Frankfurt Germany.

Action Item 9-10 was assigned to provide Frankfurt data from the first encounter on May 19 2000 using the Baseline Enhanced Decoder for comparison with the LDPU reception performance. This working paper provides a set of graphs that present the reception performance of British Airways aircraft BA-400665 with the RMF Baseline Enhanced Decoder. The data is presented both with and without the 6-microsecond re-trigger dead time. The overall average extended squitter reception probability without the dead time constraint was 44% and with the dead time constraint was 39%. The extended squitter counts were averaged over a 24-second wide time window to produce the aggregate average reception probability for each graph.

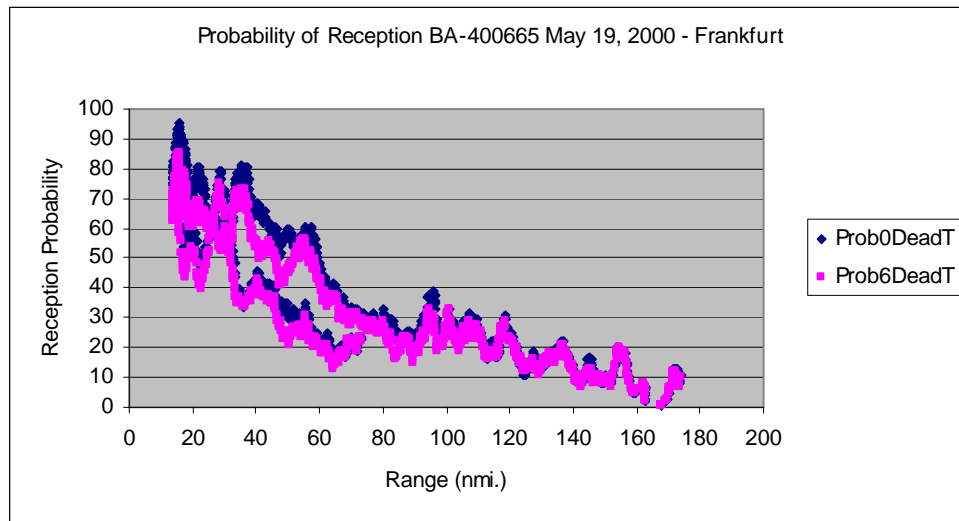


Figure 1 – Probability of Reception vs. Range, Baseline Enhanced Decoder

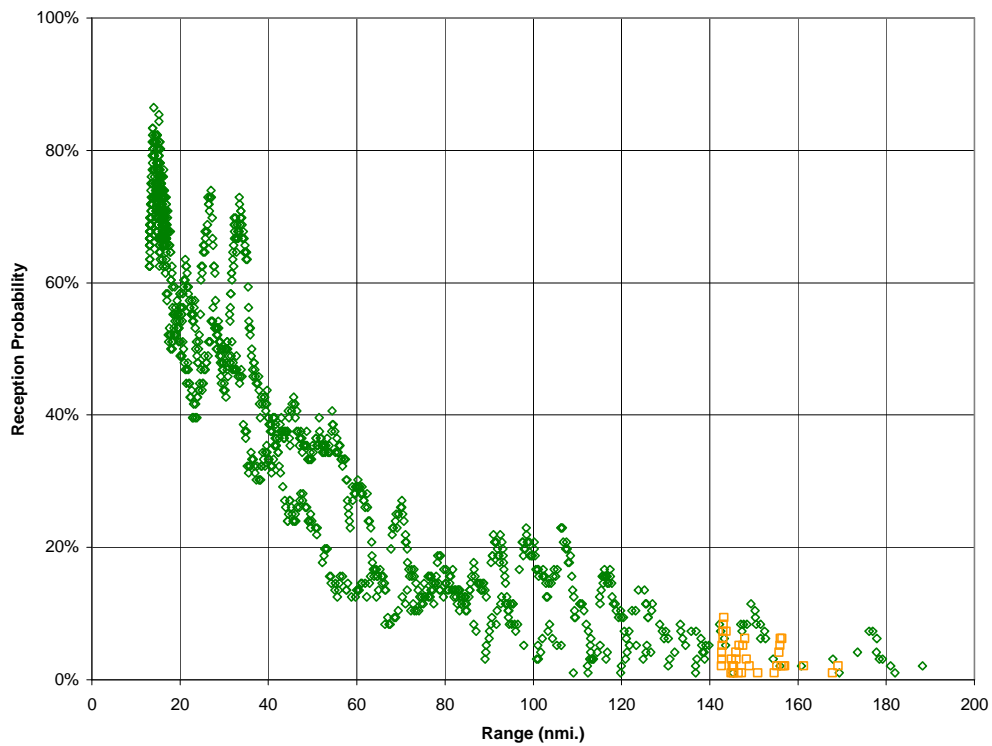


Figure 2 – Probability of Reception, LDPU (from Frankfurt Report)

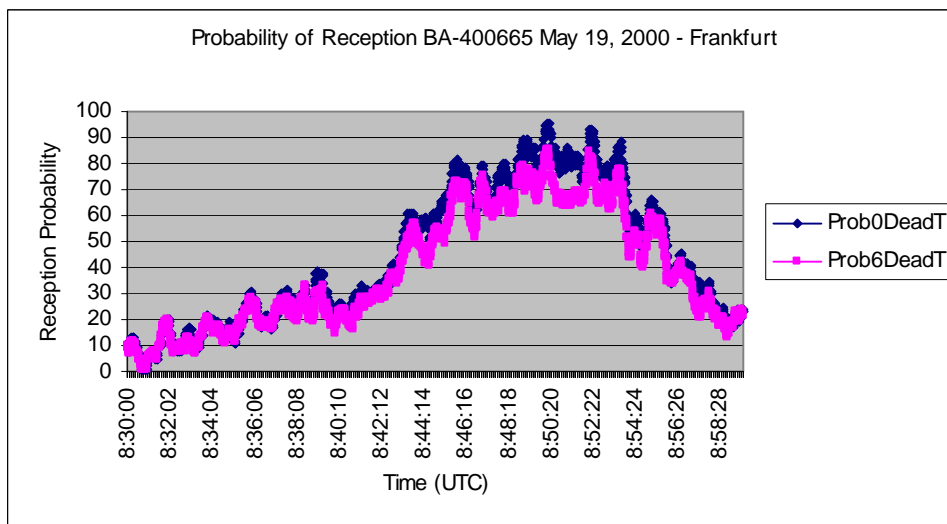


Figure 3 – Probability of Reception vs. Time, Baseline Enhanced Decoder

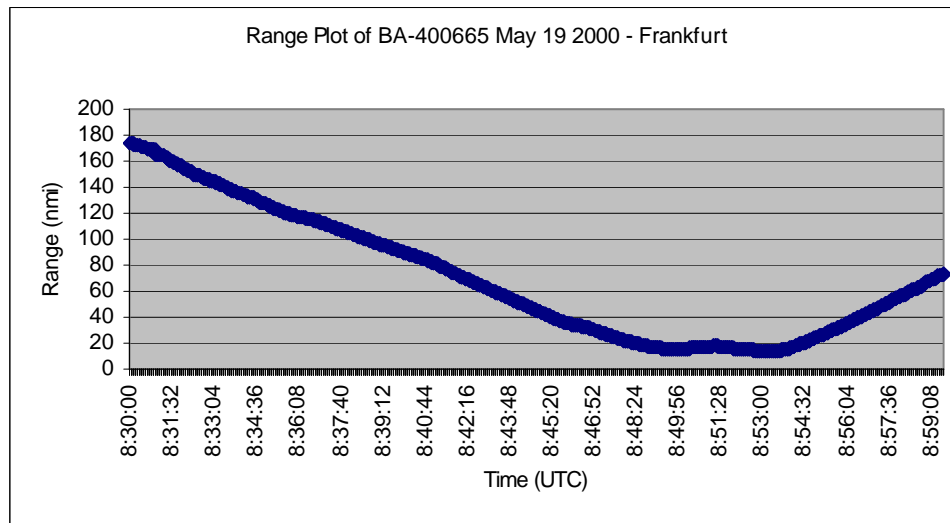


Figure 4 – Range vs. Time

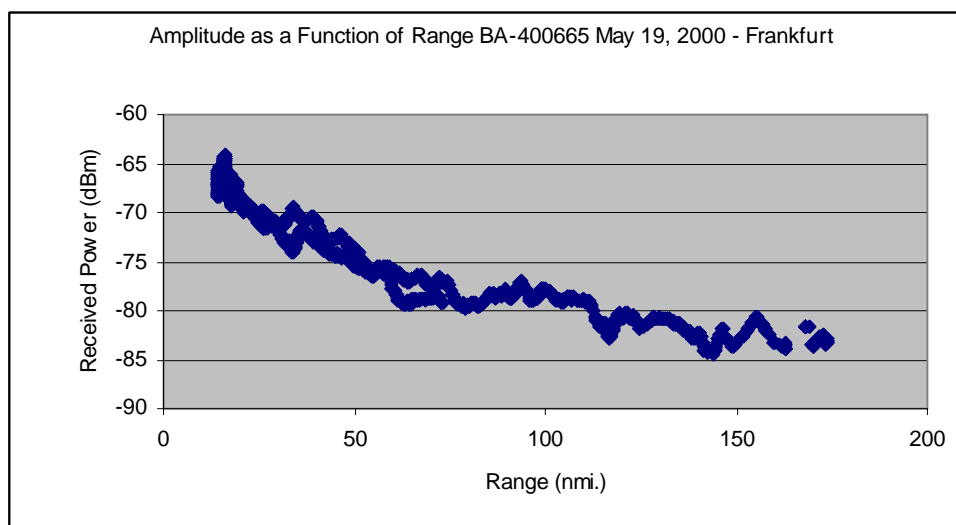


Figure 5 – Received Amplitude as a Function of Range, Baseline Enhanced Decoder